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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,515	04/07/2005	Takenobu Sunagawa	Q86666	5345

23373 7590 09/28/2006  
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WASHINGTON, DC 20037

EXAMINER
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BERNSHTEYN, MICHAEL

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 09/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/530,515	<b>Applicant(s)</b> SUNAGAWA ET AL.	
	<b>Examiner</b> Michael Bernshteyn	<b>Art Unit</b> 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☐ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 19, 2006 has been entered.
2. This Office Action follows a response filed on July 19, 2006. No claims have been amended; claims 8 and 9 have been added, no claims have been cancelled.
3. Claims 1-9 are pending.

### ***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

### ***Claim Rejections - 35 USC § 103***

4. The test of this section of Title 35 U.S.C. not included in this action can be found in a prior Office Action.
5. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable as obvious over Watanabe et al. (U. S. Patent 6,447,913) in view of Lane (U.S. Patent 4,034,013), for the rationale recited in paragraph 4 of Office Action dated on April 19, 2006.

6. Claims 8 and 9 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lane (U.S. Patent 4,034,013).

Lane discloses a multiple stage polymer having a rubbery first stage and an epoxy functional hard final stage, a method for improving the notched Izod impact strength and melt strength of poly(alkylene terephthalates), compositions comprising poly(alkylene terephthalates) and the multiple stage polymer, and articles molded therefrom (abstract).

With regard to the limitations of claims 8 and 9, Lane discloses the composition, which does not contain  $\alpha$ -olefins but contains **n-butyl acrylate**, **methyl metacrylate**, **glycidyl methacrylate** and allyl methacrylate in the claimed weight ratio (Example 5, col. 6, lines 17-25). Additionally, the examples 1-4 contain 1,3-butylene diacrylate (col. 5 and 6). Therefore, all these examples can be used to achieve a positive result with or without  $\alpha$ -olefins in the composition.

Rubbery polymers suitable for the **core** include polymers of one or more of butadiene or acrylates as the major monomers and optional minor amounts of "harder" monomers such as styrene and the like. It is preferred that the major amount of the first stage monomer system is C<sub>1</sub> to C<sub>12</sub> alkyl acrylate. The preferred acrylates are methyl acrylate, ethyl acrylate, butyl acrylate, 2-ethylhexyl acrylate and the like. The most preferred acrylates are n-butyl acrylate and ethyl acrylate. It is highly preferred that the first stage monomer system further includes graft-linking monomer (col. 2, line 23-35).

Lane does not disclose that a thermoplastic polyester resin composition has weight average molecular weight of 1,000 to 400,000 and a crystallinity of at most 20%,

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and that the unit (a) is derived from 65 to 95% by weight of alkyl (meth) acrylate containing an epoxy group.

With regard to the limitation of the instant claim 8, the rejections are made in the sense of *In re Spada*, 911 F.2d 705, 709, 15 USPQ 1655, 1658 (Fed. Cir. 1990), which settles that when the claimed compositions are not novel, they are not rendered patentable by recitation of properties, whether or not these properties are shown or suggested in prior art.

Therefore, the property governing the claimed composition comprising a plurality of polymerizable components, such as crystallinity, is inherently the same as or rendered obvious over Lane, since Lane's composition is essentially the same as instantly claimed, and comprises the identical chemical ingredients, as discussed above, and is used for the same purpose for providing a thermoplastic polyester resin composition.

Since the USPTO does not have proper equipment to do the analytical test the burden is now shifted to the applicant to prove otherwise. *In re Best*, 195 USPQ 430, (CCPA 1977).

With regard to the limitations of claim 8 concerning weight average molecular weight and with regard to the limitations of claim 9 concerning the weight ratio of the unit (a), it is noted that these parameters are result effective variables, and therefore, it is within the skill of those skilled in the art to find the optimum value of a result effective variable, as per *In re Boesch and Slaney* 205 USPQ 215 (CCPA 1980). See also *Peterson*, 315 F.3d at 1330, 65 USPQ2d at 1382: "The normal desire of scientists or

artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages."

### ***Response to Arguments***

7. Applicants traverse the rejection under 35 U.S.C. § 103(a) of claims 1-7 as being unpatentable as obvious over Watanabe et al. (U. S. Patent 6,447,913) in view of Lane (U.S. Patent 4,034,013). Applicant's arguments have been fully considered but they are not persuasive.

8. Applicants contend that Watanabe only discloses various kinds of thermoplastic elastomers and a core-shell polymer as an impact resistance modifier (B), and does not specifically mention a thermoplastic elastomer and a core-shell polymer in combination. Applicants point out that at column 3, lines 34-48 relied on by the Examiner. Watanabe discloses each of thermoplastic elastomers and core-shell polymers as individual examples of impact resistance rendering materials (B) and not as a combination. Specifically, it states, "Typical examples of the impact resistance rendering materials (B) used in the present invention include thermoplastic elastomers and core-shell polymers" (page 8, 3<sup>rd</sup> paragraph).

9. It is noted that in the above phrase Watanabe clearly discloses that thermoplastic elastomers and core-shell polymers are both included in the impact resistance rendering materials (B), whether or not the examples mention such combination. It is also worth to mention that "It is prima facie obvious to combine two compositions each

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of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980)

(citations omitted) (Claims to a process of preparing a spray-dried detergent by mixing together two conventional spray-dried detergents were held to be *prima facie* obvious.). See also *In re Crockett*, 279 F.2d 274, 126 USPQ 186 (CCPA 1960) (Claims directed to a method and material for treating cast iron using a mixture comprising calcium carbide and magnesium oxide were held unpatentable over prior art disclosures that the aforementioned components individually promote the formation of a nodular structure in cast iron.); and *Ex parte Quadranti*, 25 USPQ2d 1071 (Bd. Pat. App. & Inter. 1992) (mixture of two known herbicides held *prima facie* obvious).

10. Applicants contend that Watanabe does not recognize the synergistic effect obtainable from the combination of the specific viscosity modifier for a thermoplastic polyester resin and core-shell polymer as shown by the data provided in the specification (page 8, 2<sup>nd</sup> paragraph).

11. It is noted that when the claimed compositions are not novel, they are not rendered patentable by recitation of properties, whether or not these properties are shown or suggested in prior art. See *In re Spada*, 911 F.2d 705, 709 15 USPQ 1655, 1658 (Fed. Cir. 1990).

12. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

13. It is noted during the interview with Ms. Jennifer M Hayes on August 10, 2006 that further evaluation of unexpected results in terms of combining a viscosity modifier and core-shell graft polymer in the comparative examples should be done, which should be commensurate in scope of the claims.

14. In the light of the discussion above, the rejection of record has not been withdrawn. The rejection remains in force.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Bernshteyn whose telephone number is 571-272-2411. The examiner can normally be reached on M-F 8-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

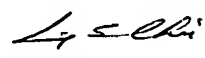


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael Bernshteyn  
Examiner  
Art Unit 1713

MB  
09/21/2006

  
LING-SUI CHOI  
PRIMARY EXAMINER